

Claims

1. An apparatus (5) for making pods (1) containing respective doses (4) of an infusion product, the apparatus comprising: revolving drum conveyor means (6) with pockets (7) uniformly distributed on it; a line (B) for feeding a first web (12) of filter material which feeds the first web (12) to the conveyor means (6); actuating means (8) for moving the first web (12) against the pockets (7) on the revolving drum conveyor means (6) to form on the first web (12) a series of impressions (L); and a second line (A) for feeding a second web (11) of filter material; the apparatus being characterised in that the actuating means (8) comprise, for each pocket (7) on the revolving drum conveyor means (6), at least one forming head (13) coupled with the pocket (7) itself, the forming head (13) being mobile towards and away from the pocket (7) so that it is pressed into the web (12) and impresses the web (12) in the pocket (7) to form the respective impression (L); and suction means (14) acting on the web (12) at the pocket (7) in synchrony with the forming head (13).
2. The apparatus according to claim 1, characterised in that it comprises reciprocating pusher means (20) pressing on the head (13) in such manner as to push the head (13) into the pocket (7) and forming the impression (L) in the first web (12) in conjunction with the suction means (14) acting on the pocket (7) itself.
3. The apparatus according to claim 1 or 2, characterised in that the suction means (14) are designed to hold the first web (12) and the forming head (13) within the pocket (7) for a defined length of time while the revolving drum conveyor means (6) turn.
4. The apparatus according to any of the foregoing claims from 1 to 3, characterised in that the forming head (13) comprises a rigid pressing element (13a) whose shape and size match the shape and size of the pocket (7) it is coupled with.
5. The apparatus according to any of the foregoing claims from 1 to 3, characterised in that the forming head (13) consists of a

membrane (13b) of flexible material mounted in and perimetally fixed to a rigid, frame-like plate (13c).

5 6. The apparatus according to claim 4 or 5, characterised in that each forming head (13) is associated with a stabilising plate (15) designed to stabilise the respective edges of the first web (12) at the pocket (7) to enable the top of the pocket (7) to be substantially closed during the step of impressing the first web (12).

10 7. The apparatus according to claim 6, characterised in that it comprises elastic interposition means (16) located between the forming head (13) and the stabilising plate (15).

15 8. The apparatus according to any of the foregoing claims from 1 to 7, characterised in that the forming head (13) is acted upon by first cam drive means (17) that move the head (13) towards and away from the revolving drum conveyor means (6) over the respective pocket (7) in a direction parallel to the axis of rotation (X) of the revolving drum means (6) themselves; and second cam drive means (19) that move the head (13) towards or away from the respective pocket (7) on the revolving drum conveyor means (6) in a radial direction relative to the pocket (7) itself.

20 9. The apparatus according to any of the foregoing claims from 1 to 8, characterised in that it further comprises compensating means (9) positioned and acting at each forming head (13) in such manner as to unwind defined lengths of the first web (12) to create a slack excess portion of the first web (12) that is used up by and makes up for the portion that slides towards the pocket (7) when the head (13) moves towards the pocket (7) to form the impression (L).

30 10. The apparatus according to claim 9, characterised in that the compensating means (9) comprise, for each head (13), a pair of pins (21) located on opposite sides of the head (13) and mobile towards and away from the first web (12) of filter material, under the pushing action of the cam means (23), in a direction substantially radial to the pocket (7) and forming head (13).

35 11. The apparatus according to any of the foregoing claims from 1 to 10, characterised in that the second feed line (A) is defined by the feeding of the second web (11) of filter material which

supports an ordered succession of doses (4) of the infusion product, each dose (4) being designed to be associated with a respective impression (L) of the first web (12).